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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/666,646

Applicant(s)

BASAWAPATNA ET AL.

Examiner

JOHN R. SCHNURR

Art Unit

2421

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-54 and 56-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-54 and 56-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the Amendment After Non-Final Rejection filed 10/23/2008. Claims 30-54 and 56-63 are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to claims 30-54 and 56-63 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 54 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 54, the phrase "or other suitable cable delivery system" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or other suitable cable delivery system"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **30-39, 41-44, 46, 49-54 and 57** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)**, herein Utsumi, in view of **Gordon et al. (U.S. Patent 7,146,628)**, herein Gordon.

Consider **claim 30**, Utsumi clearly teaches a method comprising:

receiving, at a local service module, one or more multiplexed channel signals from a headend; **(Fig. 2: Selective distribution station 10 receives a plurality of multiplexed video channels from center station 1, column 7 lines 26-29.)**

receiving a channel selection request for one of the plurality of video channels; **(column 7 line 62 to column 8 line 2)**

converting to a predetermined frequency, by one of a plurality of converters in the local service module, the one of the plurality of video channels corresponding to the channel selection request; **(Fig. 3: Modulating portion 13_i converts the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

combining by the local service module, the converted one of the plurality of video channels with at least one other video channel from the one or more multiplexed channel signals into a multiplexed signal for transmission via the cabling. **(Fig. 3: Outputs from the modulating portions 13_x are multiplexed and transmitted via transmission line 20, column 8 lines 37-41.)**

However, Utsumi does not explicitly teach receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood.

In an analogous art, Gordon clearly teaches receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood

headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood. **(Fig. 1 col. 3 lines 59-67; col. 17 line 59 to col. 18 line 5)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Utsumi by receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, as taught by Gordon, for the benefit of providing only the necessary data to a region (col. 1 lines 55-67 Gordon).

Consider **claim 31**, Utsumi combined with Gordon, as in claim 30, clearly teaches converting, to a second predetermined frequency using another one of the plurality of converters, the at least one other video channel from the one or more multiplexed channel signals. **(Each modulating portion 13_x modulates the signal to a different frequency for each subscriber, column 8 lines 37-46 Utsumi.)**

Consider **claim 32**, Utsumi combined with Gordon, as in claim 30, clearly teaches the video channels of the multiplexed signal are provided to and filtered by a video displaying apparatus coupled to an interface unit located at a customer location. **(The subscriber receiving device 31, receives the multiplexed signal and filters out the frequency, f_1 , for which it is assigned, column 8 lines 41-43 Utsumi.)**

Consider **claim 33**, Utsumi combined with Gordon, as in claim 30, clearly teaches the channel selection request is received from a customer. **(column 7 line 62 to column 8 line 2 Utsumi)**

Consider **claim 34**, Utsumi combined with Gordon, as in claim 30, clearly teaches the channel selection request identifies the customer. **(After receiving the channel change request from a subscriber the selected channel is modulated with a frequency assigned to that subscriber, therefore the channel change request must contain information identifying the subscriber, column 8 lines 20-46 Utsumi.)**

Consider **claim 35**, Utsumi combined with Gordon, as in claim 30, clearly teaches demultiplexing the one or more multiplexed channel signals at the local

service module. **(Fig. 3 Demultiplexing portion 11, column 7 lines 39-42 Utsumi)**

Consider **claim 36**, Utsumi combined with Gordon, as in claim 30, clearly teaches at least one of the one or more multiplexed channel signals includes one or more video channels received from any one or more, or a combination of, the following components of the neighborhood headend: a personal video recorder, a video on demand server, a personal computer, and a DOCSIS frequency converter. **(col. 17 lines 51-58 Gordon)**

Consider **claim 37**, Utsumi combined with Gordon, as in claim 36, clearly teaches the channel selection request includes at least one command to control the video on demand server. **(col. 17 lines 51-58 Gordon)**

Consider **claim 38**, Utsumi combined with Gordon, as in claim 30, clearly teaches the predetermined frequency is one of a plurality of predetermined frequencies; and the multiplexed signal is transmitted to a plurality of room interface units, each unit being associated with one of the plurality of predetermined frequencies. **(Each subscriber device 71 has a corresponding predetermined frequency. The multiplexed signal is transmitted to each subscriber device 71, wherein the device filters the frequency assigned to it, column 8 lines 34-51 Utsumi.)**

Consider **claim 39**, Utsumi combined with Gordon, as in claim 30, clearly teaches the channel selection request is received from one of the plurality of room interface units. **(column 7 line 62 to column 8 line 2 Utsumi)**

Consider **claim 41**, Utsumi combined with Gordon, as in claim 30, clearly teaches at least one of the plurality of converters is a programmable converter. **(Fig. 3 modulating portions 13₁ to 13_N, column 7 lines 45-51 and column 8 lines 29-37 Utsumi)**

Consider **claim 42**, Utsumi combined with Gordon, as in claim 30, clearly teaches at least one of the plurality of converters is a frequency converter. **(Modulating portions 13₁ to 13_N convert the frequency of the signal, column 8 lines 34-37 Utsumi.)**

Consider **claim 43**, Utsumi combined with Gordon, as in claim 30, clearly teaches another local service module converts a video channel from the plurality of video channels to the predetermined frequency. **(Fig. 10: The system can employ multiple selective distribution stations, Utsumi.)**

Consider **claim 44**, Utsumi combined with Gordon, as in claim 30, clearly teaches the local service module utilizes frequencies for the plurality of

converters in the local service module that are identical to frequencies utilized by a plurality of converters in the another local service module. **(The modulating portions 13₁ to 13_N in each of the selective distribution stations output frequencies in the range of f_1 to f_N , column 8 lines 11-15 Utsumi.)**

Consider **claim 46**, Utsumi clearly teaches a local service module adapted to receive one or more multiplexed channel signals comprising a plurality of video channels and to transmit a multiplexed signal, **(Fig. 2 column 7 lines 18-32) the service module comprising:**

a microprocessor adapted to receive a channel selection request for one of the plurality of video channels; **(Fig. 3: Receiving portion 15 receives channel change requests, column 7 line 62 to column 8 line 2)**

a plurality of converters adapted to convert to a predetermined frequency at least one of the plurality of video channels corresponding to the channel selection request; **(Fig. 3: Modulating portions 13₁ to 13_N convert the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

a combiner adapted to combine the converted one of the plurality of video channels with at least one other video channel into the multiplexed signal. **(Fig. 3: Outputs from the modulating portions 13_x are multiplexed and transmitted via transmission line 20, column 8 lines 37-41.)**

However, Utsumi does not explicitly teach receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood.

In an analogous art, Gordon clearly teaches receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood. **(Fig. 1 col. 3 lines 59-67; col. 17 line 59 to col. 18 line 5)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Utsumi by receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, as taught by Gordon, for the benefit of providing only the necessary data to a region (col. 1 lines 55-67 Gordon).

Consider **claim 49**, Utsumi combined with Gordon, as in claim 46, clearly teaches at least one of the plurality of converters is a programmable converter. **(Fig. 3 modulating portions 13₁ to 13_N, column 7 lines 45-51 and column 8 lines 29-37 Utsumi)**

Consider **claim 50**, Utsumi combined with Gordon, as in claim 46, clearly teaches at least one of the plurality of converters is a frequency converter. **(Modulating portions 13₁ to 13_N convert the frequency of the signal, column 8 lines 34-37 Utsumi.)**

Consider **claim 51**, Utsumi combined with Gordon, as in claim 46, clearly teaches the converted one of the plurality of video channels is provided to at least one bandpass filter. **(Receiving device 31 filters the intended signal, column 8 lines 41-43 Utsumi.)**

Consider **claim 52**, Utsumi combined with Gordon, as in claim 46, clearly teaches a power divider adapted to divide the multiplexed channel signal into a plurality of identical multiplexed channel signals, one for each of the plurality of converters. **(Fig. 11: The multiplexed signal is divided into multiple multiplexed signals that are transmitted to each of the selective distribution stations Utsumi.)**

Consider **claim 53**, Utsumi clearly teaches a cable distribution system, comprising:

a plurality of local service modules to receive one or more multiplexed channel signals comprised of one or more video channels, **(Fig. 2: Selective distribution station 10 receives a plurality of multiplexed video channels from center station 1, column 7 lines 26-29.)**
a selected one or more of the video channels being provided to one or more of a plurality of converters in one of the local service modules for conversion into at least one predetermined frequency for combination with

another video channel into a multiplexed signal; **(Fig. 3: Modulating portion 13, converts the requested video channel to a predetermined frequency, column 8 lines 20-37.)**

a plurality of room interface units associated with the plurality of local service modules, each of the plurality of room interface units to receive the multiplexed signal and filtering one of the one or more video channels from the multiplexed signal for a video displaying apparatus. **(The subscriber receiving device 31, receives the multiplexed signal and filters out the frequency, f_1 , for which it is assigned, column 8 lines 41-43 Utsumi.)**

However, Utsumi does not explicitly teach receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood.

In an analogous art, Gordon clearly teaches receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood. **(Fig. 1 col. 3 lines 59-67; col. 17 line 59 to col. 18 line 5)**

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Utsumi by receiving, at a neighborhood headend located in a neighborhood, one or more input signals from a cable distribution center; multiplexing, by the neighborhood headend, one or more of a plurality of video channels received in the one or more input signals from the cable distribution center; sending the multiplexed channel signals to a local service module located in the neighborhood and coupled to the neighborhood headend; and a plurality of room interface units coupled to the local service module located at a customer location of the neighborhood, as taught by Gordon, for the benefit of providing only the necessary data to a region (col. 1 lines 55-67 Gordon).

Consider **claim 54**, Utsumi combined with Gordon, as in claim 53, clearly teaches the neighborhood headend is further configured to receive signals from a plurality of video sources, including a satellite delivery system, transportation system such as Digital to Home Platform, or other suitable cable delivery system. **(col. 3 lines 52-58 Gordon)**

Consider **claim 57**, Utsumi combined with Gordon, as in claim 53, clearly teaches the neighborhood headend is remote from a cable distribution center headend. **(col. 3 lines 59-67 Gordon)**

7. Claim **40** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view **Gordon et al. (U.S. Patent 7,146,628)**, as applied to claim 30 above, and further in view of **Kitamura et al. (U.S. Patent 6,188,871)**, herein Kitamura.

Consider **claim 40**, Utsumi combined with Gordon, as in claim 30, are relied upon as discussed above.

However, Utsumi combined with Gordon, as in claim 30, do not explicitly teach at least one of the plurality of room interface units includes authorization information that authorizes display of the one of the plurality of channels and the method further comprises: obtaining authorization from the at least one of the plurality of room interface units to convert the one of the plurality of video channels.

In an analogous art, Kitamura, teaches at least one of the plurality of room interface units includes authorization information that authorizes display of the one of the plurality of channels and the method further comprises: obtaining authorization from the at least one of the plurality of room interface units to convert the one of the plurality of video channels. **(Fig. 7 Steps 1-4, column 8 lines 34-63)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the headend of Utsumi in view of Gordon to incorporate a block of personal video recorders, as taught by Kitamura, for the benefit of increasing operator revenues through offering restricted access to premium content for increased subscription fees.

8. Claim **45** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Gordon et al. (U.S. Patent 7,146,628)**, as applied to claim 30 above, and further in view of **Chen et al. (US Patent 5,699,105)**, herein Chen, further in view of **Fellows, et al. ("DOCSIS Cable Modem Technology," IEEE Communications Magazine, March 2001, Vol. 39, Issue 3, pp. 202-209 (ISSN: 0163-6804))**, herein Fellows.

Consider **claim 45**, the teachings of Utsumi in view of Gordon, are relied upon as discussed above relative to claim 30. Utsumi in view of Rakib fails to disclose the information passed back upstream to the service module also includes a DOCSIS return channel that is passed by the service module back to the headend and back to an internet service provider, as claimed.

However, Chen, in an analogous art, teaches passing information back upstream to a service module including data transmissions which are further passed to a headend for communication with an internet service provider for the benefit of providing access to internet based services over a cable network (**col. 5, lines 38-41**).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the upstream information of Utsumi in view of Gordon to incorporate passing information upstream to the service module that is passed by the service module to the headend and back to an internet service provider, as taught by Chen, for the benefit of providing access to internet based services over a cable network in a cable distribution network.

Although Chen teaches transmitting upstream data via a service module to a headend for communication with an internet service provider, Utsumi in view of Gordon, further in view of Chen fails to specifically disclose the upstream information including a DOCSIS return channel, as claimed.

However, Fellows, in an analogous art, teaches transmitting upstream information comprising a DOCSIS return channel (**page 204, 2nd col., paragraphs 2-3**). Utilizing a DOCSIS return channel in upstream data communications in a cable network provides the typical and well-known benefit of complying with an established data transmission standard and allows for the use of standardized data transceiver devices (e.g., customer

cable modems and headend cable modem termination system equipment).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the upstream information of Utsumi in view of Gordon further in view of Chen to incorporate upstream information including a DOCSIS return channel, as taught by Fellows, for the benefit of complying with an established data transmission standard and facilitating the use of standardized data transceiver devices in a cable distribution system.

9. Claims **47 and 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Gordon et al. (U.S. Patent 7,146,628)**, as applied to claim 46 above, further in view of **Nikolich (US Patent Application Publication 2002/0073431)** and further in view of **Land (US Patent 6,848,116)**.

Consider **claim 47**, Utsumi in view of Gordon fails to disclose the local service module further comprises: an input diplexer that separates a DOCSIS channel from the one or more multiplexed channel signals.

However, Nikolich, in an analogous art, teaches a television system including a DOCSIS channel (**Fig. 1B, Modulators 108-1 -108-N; paragraphs 27-28, describing frequency conversion of DOCSIS downstream data signals**). Including DOCSIS frequency converters at a cable headend provides the typical and well-known benefit of transmitting downstream internet data to subscribers in compliance with an accepted and widely used data transmission standard.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Utsumi in view of Gordon to include a DOCSIS communication channel, as taught by Nikolich, for the benefit of transmitting downstream internet data to subscribers in compliance with an accepted and widely utilized data transmission standard in a cable distribution system.

The combination of Utsumi, Gordon and Nikolich fails to disclose an input diplexer that separates channels from the multiplexed signal.

In an analogous art, Land, which teaches a system for bi-directional communication in a cable system, clearly teaches an input diplexer that separates channels from the multiplexed signal. **(Fig. 9 Input diplexer 26, column 3 line 67 to column 4 line 6; column 4 lines 33-36)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Utsumi in view of Gordon and Nikolich to include an input diplexer, as taught by Land, for the benefit of separating the input signal into separate frequency bands.

Consider **claim 48**, Utsumi in view of Gordon, Nikolich and Land, as in claim 47, clearly teaches an output diplexer that separates a DOCSIS channel from the one or more multiplexed channel signals. **(Fig. 9 Output diplexer 19, column 3 line 67 to column 4 line 6; column 4 lines 33-36 Nikolich)**

10. Claim **56** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Utsumi et al. (US Patent 5,729,281)** in view of **Gordon et al. (U.S. Patent 7,146,628)**, as applied to claim 53 above, and further in view of **Kitamura et al. (U.S. Patent 6,188,871)**, herein Kitamura.

As for **claim 56**, the teachings of Utsumi in view of Gordon are relied upon as discussed above. Utsumi in view of Gordon fails to disclose an associated database in communication with the processor, the database storing customer viewing preferences.

However, Kitamura, in an analogous art, teaches a processor **(Fig. 3, CPU 904)** and database **(Fig. 3, Database 111)** in communication with a headend and service module, the processor controlling the operation of receiver/decoders and the database assisting the processor and storing customer viewing preferences **(col. 8, lines 4-9, col. 8, lines 34-51)** for the benefit of enabling a subscriber to receive a desired CATV program through a simple receiver **(see col. 1, line 65 - col. 2, line 7)**.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of Utsumi in view of Gordon to incorporate the processor and an associated database in communication with the headend and service module, and the database assisting the processor in this functionality and in storing customer viewing preferences, as taught by Kitamura, for the benefit of enabling a subscriber to receive a desired CATV program through a simple receiver in a cable distribution system.

11. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al. (U.S. Patent 7,146,628)** in view of **Rakib (US Patent Application Publication 2002/0019984)** further in view of **Land (US Patent 6,848,116)**.

Consider **claim 58**, Gordon clearly teaches a neighborhood headend comprising:

Receiver/decoder means for receiving at least one of a satellite dish signal and a cable television signal from a cable distribution center and for decoding and outputting in response, a first signal; (**Fig. 1 col. 3 lines 59-67; col. 17 line 59 to col. 18 line 5**)

combiner means for combining the first and the second signal and for outputting a combined signal; (**Fig. 11 MUX 1116**)

outputting a multiplexed channel signal to a local service module co-located in a neighborhood with the neighborhood headend. (**Fig. 11 Local Delivery 1120**)

However, Gordon does not explicitly teach video recorder means for receiving at least one of a satellite dish signal and a cable television signal from the cable distribution center and for outputting in response, a selected second signal.

In an analogous art, Rakib, which discloses a system for a video headend, clearly teaches video recorder means for receiving at least one of a satellite dish signal and a cable television signal from the cable distribution center and for outputting in response, a selected second signal. (**Fig. 6 Hard disk array 289, [0096]-[0097]**)

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Gordon by using video recorder means for receiving at least one of a satellite dish signal and a cable television signal from the cable distribution center and for outputting in response, a selected second signal, as taught by Rakib, for the benefit of reduced consumer costs in the provision of TIVO like functions by utilizing hardware located at a headend in a cable distribution system.

However, Gordon combined with Rakib does not explicitly teach diplexer means for receiving the combined signal and for outputting in response, a multiplexed channel signal to a local service module co-located in a neighborhood with the neighborhood headend.

In an analogous art, Land, which teaches a system for bi-directional communication in a cable system, clearly teaches diplexer means for receiving the combined signal and for outputting in response, a multiplexed channel signal to a local service module co-located in a neighborhood with the neighborhood headend. (Fig. 9 Input diplexer 26, column 3 line 67 to column 4 line 6; column 4 lines 33-36)

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gordon combined with Rakib to include an input diplexer, as taught by Land, for the benefit of separating the input signal into separate frequency bands.

12. Claims 59 and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al. (U.S. Patent 7,146,628)** in view of **Rakib (US Patent Application Publication 2002/0019984)** further in view of **Land (US Patent 6,848,116)**, as applied to claim 58 above, further in view of **Nikolich (US Patent Application Publication 2002/0073431)**.

Consider **claim 59**, Gordon combined with Rakib and Land clearly teaches a neighborhood headend.

However, Gordon combined with Rakib and Land does not explicitly teach personal computer means for receiving an Internet over television signal, the personal computer means also for outputting in response, a third signal to be combined with the first and the second signal by the combiner means.

However, Nikolich, in an analogous art, teaches personal computer means for receiving an Internet over television signal, the personal computer means also for outputting in response, a third signal to be combined with the first and the second signal by the combiner means. ([0027]-[0028])

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gordon combined with Rakib and Land to include personal computer means for receiving an Internet over television signal, the personal computer means also for outputting in response, a third signal to be combined with the first and the second signal by the combiner means, as taught by Nikolich, for the benefit of transmitting downstream internet data to subscribers in compliance with an

accepted and widely utilized data transmission standard in a cable distribution system.

Consider **claim 60**, Gordon combined with Rakib, Land and Nikolich clearly teaches frequency converter means for receiving an Internet connectivity channel and converting the Internet connectivity channel to a predetermined frequency for passage to the combiner means. **[[0028] Nikolich)**

13. Claims **61 and 63** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al. (U.S. Patent 7,146,628)** in view of **Rakib (US Patent Application Publication 2002/0019984)** further in view of **Land (US Patent 6,848,116)**, as applied to claim 58 above, further in view of **Hendricks et al. (US Patent 5,600,364)**, herein Hendricks.

Consider **claim 61**, Gordon combined with Rakib and Land clearly teaches a neighborhood headend.

However, Gordon combined with Rakib and Land does not explicitly teach receiver/decoder means comprises a block of separate integrated receiver/decoders (IRDs).

However, Hendricks, in an analogous art, teaches receiver/decoder means comprises a block of separate integrated receiver/decoders (IRDs). **(Fig. 6a IRDs 240, col. 21 lines 38-40)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gordon combined with Rakib and Land to include receiver/decoder means comprising a block of separate integrated receiver/decoders (IRDs), as taught by Hendricks, for the benefit of controlling multiple video signals (col. 3 lines 10-12 Hendricks).

Consider **claim 63**, Gordon combined with Rakib, Land and Hendricks clearly teaches the receiver/decoder means is further for receiving a satellite dish signal. **(col. 3 lines 53-59 Hendricks)**

14. Claim **62** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al. (U.S. Patent 7,146,628)** in view of **Rakib (US Patent Application Publication**

2002/0019984) further in view of **Land (US Patent 6,848,116)**, as applied to claim 58 above, further in view of **Chen et al. (US Patent 5,699,105)**.

Consider **claim 61**, Gordon combined with Rakib and Land clearly teaches a neighborhood headend.

However, Gordon combined with Rakib and Land does not explicitly teach video recorder means is further for receiving a signal from a broadcast television antenna.

However, Chen, in an analogous art, teaches Claim 62. (New) The neighborhood headend of claim 58 wherein the video recorder means is further for receiving a signal from a broadcast television antenna. **(col. 6 lines 1-4)**

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Gordon combined with Rakib and Land by receiving a signal from a broadcast television antenna., as taught by Chen, for the benefit of increasing the available programming.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN R. SCHNURR whose telephone number is (571)270-1458. The examiner can normally be reached on Monday - Friday, 8:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John W. Miller/
Supervisory Patent Examiner, Art Unit 2421

JRS

